

III. REMARKS

Claims 1, 4, 5 and 7-14 are currently pending in the present application. Of these pending claims, 1 and 11 have been amended, and claim 14 has been cancelled. No claims have been added. The amendments to the claims are believed to place the application in condition for allowance.

Claim Rejections – 35 USC § 102

The Examiner has rejected claims 1, 4, 5, 7-9, 11 and 12 under 35 USC § 102(b) as being anticipated by Hesthamar et al. The Examiner states:

Regarding claim 1, Hesthamar et al discloses a device for measuring the forces between components of an assembly comprising a first force applying means 23 comprising a thread, a second force applying means (nut) (See column 3, lines 56-67), a measuring element 2 in the form of a washer that contacts the force applying means 23 (See column 3, lines 56-67), the washer comprising a piezoresistive coating of an amorphous material 7....such that the electrical resistance of the washer is continuously variable as a function of the axial force applied by the means 23...

In making this anticipation rejection, it is respectfully submitted that the Examiner is in error in his interpretation of Hesthamar et al (U.S. 5, 343,759). Hesthamar et al does not disclose a piezoresistive coating or layer, but instead a layer of magneto elastic material. It is important to note that piezoresistive and magneto elastic properties are not comparable. A piezoresistive material shows a pressure dependent electrical resistance. A magneto elastic material, in contrast, shows a pressure dependent or tension dependent permeability.(See column 1, lines 8-12 in Hesthamar et al). Therefore, the device shown in Hesthamar et al is technically completely different from what is

described and claimed in the present application. Since claim 1 requires a piezoresistive coating which Hesthamar et al does not have, and since, for an “anticipation” rejection to be proper, every thing being claimed must be “within the four corners” of the reference being cited, Hesthamar et al can not anticipate claims 1, 4, 5, 7-9, 11 and 12. It is respectfully submitted that these claims therefore are allowable over Hesthamar et al.

Claim Rejections – 35 USC § 103

The Examiner has rejected claim 10 as being obvious over Hesthamar et al. in view of Payne (4,040,776) The Examiner states:

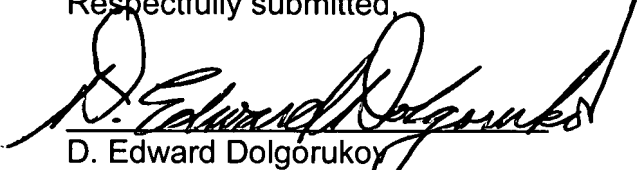
Regarding claim 10, Hesthamar et al discloses all of the limitations of these claims except for an acoustic or optical indicating device for adjusting axial force values. However, Payne discloses a strain indicator 36 comprising an optical indicator which upon projection causes its brightly colored external surface 48 to be exposed which indicates that a decrease in load on the fastener has taken place. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hesthamar et al according to the teachings of Payne for the purpose of utilizing an optical indicator to output a visual indication that a fastener is in a loosened condition to apply an appropriate torque to the fastener....

For the reasons stated above Hesthamar et al does not disclose all of the limitations of the claims except for the acoustic or optical indicating device. Hesthamar et al does not disclose a piezoresistive coating. Therefore, even if the disclosures of Hesthamar et al and Payne are combined, the resulting construction would not have the piezoresistive layer of claim 1, from which claim 10 ultimately depends. Therefore, it is respectfully submitted that claim 10 as amended is allowable.

With regard to claim 14, the Examiner has indicated that it is only objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims. Claim 14 has been cancelled and the subject matter of claim 14 has been integrated into claims 1 and 11. It is believed that incorporating this subject matter into claims 1 and 11 make these two claims allowable, as well as all claims which depend thereon.

In view of the above amendments, and the remarks explanatory thereof, a favorable reconsideration of the present application, and the passing of this case to issue is courteously solicited.

Respectfully submitted,



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